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Changes in EEG and Behavior Induced with the Protracted Intravenous Administration of Small Doses of Nicotine in Unrestrained Cats. Grant #712R1

In cats the i.v. infusion of nicotine in doses of from 10 to 50 µg/kg produces behavioral arousal with movements and hyperpnea. These changes are usually followed by immobility and later by sedation or sleep. Changes in the electrocorticogram include initial desynchronization or flattening of the EEG followed by EEG hypersynchrony.

In the proposed investigation cats are prepared for chronic EEG recordings and for chronic i.v. infusions. Nicotine is infused to cats performing an operant food reward response with fixed intervals. Nicotine-induced changes in the EEG from cortex, thalamus, hippocampus and amygdala are compared with the effects of arousing physiological stimuli.

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